

### Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao' an District, Shenzhen, China

### FCC PART 15 SUBPART C TEST REPORT

### FCC PART 15 SUBPART C 15.249

Report Reference No......: CTA24122701401 FCC ID......: 2AW5W-IHWK

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Date of issue...... Jan. 10, 2025

Testing Laboratory Name ...... Shenzhen CTA Testing Technology Co., Ltd.

Address....... Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,

Fuhai Street, Bao'an District, Shenzhen, China

CTATESTING

Applicant's name...... Rexing Inc

Address ...... 34 Ludwig St,Little Ferry, NJ, 07643 USA

Test specification .....:

Standard ...... FCC PART 15 SUBPART C 15.249

TRF Originator...... Shenzhen CTA Testing Technology Co., Ltd.

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Trade Mark ..... REXING

Manufacturer ...... KA FUNG TECHNOLOGY CO LIMITED

Model/Type reference.....: IHWK-360

 Listed Models
 F26

 Modulation
 GFSK

 Frequency
 5778MHz

Ratings ...... DC 12V From external circuit

Result..... PASS

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# TEST REPORT

Equipment under Test : Intelligent Hardwire Kit

Model /Type **IHWK-360** 

Serial Models : F26

CTATESTING **Applicant** Rexing Inc

Address 34 Ludwig St, Little Ferry, NJ, 07643 USA

KA FUNG TECHNOLOGY CO LIMITED Manufacturer

: Rm.202, C5 Building, Hengfeng Industry Park, No.739 Zhoushi Rd, Address

Hangcheng Subdistrict, Bao'an Dist., Shenzhen China

Test Result:	TESTING	PASS	
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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		CTA TESTING	TATESTING	

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#### 1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.249: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 -5875 MHz, and 24.0 - 24.25 GHz.

ANSI C63.10:2013: American National Standard for Testing Unlicensed Wireless Devices

ANSI C63.4: 2014: - American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz Range of 9 kHz to 40GHz CTATESTING

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# SUMMARY

### 2.1 General Remarks

2.1 General Remarks		CTATESTING
Date of receipt of test sample		Jan. 01, 2025
Testing commenced on	:	Jan. 01, 2025
Testing concluded on	:	Jan. 10, 2025

Product Description:	Intelligent Hardwire Kit
Model:	IHWK-360
Power supply:	DC 12V From external circuit
testing sample ID:	CTA241227014-1# (Engineer sample), CTA241227014-2# (Normal sample)
Hardware version:	V1.0
Software version:	V1.0
SRD	
Operation frequency:	5778MHz
Modulation:	GFSK
Antenna type:	PCB antenna
Antenna gain:	0.55 dBi

### 2.3 Equipment Under Test

### Power supply system utilised

	Power supply voltage	:	0	230V / 50 Hz	0	120V / 60Hz	
TE			•	12 V DC	0	24 V DC	
CIP.	Other (specified in blank below)						
1	TES						
				1			

## Short description of the Equipment under Test (EUT)

This is an Intelligent Hardwire Kit.

For more details, refer to the user's manual of the EUT.

### **EUT** operation mode

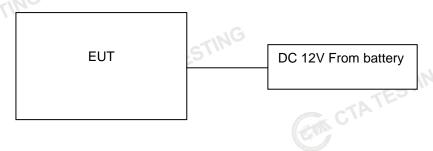
The Applicant use Key to control the EUT for staying in continuous transmitting and receiving mode for testing. There is 1 channels provided to the EUT.

**Testing Frequency List** 

Channel	Frequency
01	5778 MHz

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# **Block Diagram of Test Setup**



## Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended to comply with Section 15.407 of the FCC Part 15, Subpart E Rules.

#### **Modifications** 2.8

GTA TESTING No modifications were implemented to meet testing criteria.

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#### 3 TEST ENVIRONMENT

### 3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

#### 3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 517856 Designation Number: CN1318

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6534.01

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

#### 3.3 **Environmental conditions**

During the measurement the environmental conditions were within the listed ranges: CTA TESTING

Radiated Emission:

Temperature:	25 ° C
Humidity:	45 %
Atmospheric pressure:	950-1050mbar

Conducted testing:

Temperature:	25 ° C
100	5
Humidity:	44 %
TAIL	
Atmospheric pressure:	950-1050mbar

AC Power Conducted Emission

AC FOWER CONDUCTED ETHISSION	
Temperature:	24 ° C
	To set the
Humidity:	44 %
Atmospheric pressure:	950-1050mbar
CTA TESTING	CTATESTING

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### **Test Description**

FCC PART 15.249		
FCC Part 15.249(a)	Field Strength of Fundamental	PASS
FCC Part 15.209	Spurious Emission	PASS
FCC Part 15.215(c)	20dB bandwidth	PASS
FCC Part 15.207	Conducted Emission	N/A
FCC Part 15.203	Antenna Requirement	PASS

Note 1: The measurement uncertainty is not included in the test result.

Note 2: NA = Not Applicable; NP = Not Performed

#### 3.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen CTA Testing Technology Co., Ltd.:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)
Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)
Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB	(1)

<sup>(1)</sup> This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

# **Equipments Used during the Test**

Test Equipment	Manufacturer	Model No.	Equipment No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	CTA-308	2024/08/03	2025/08/02
LISN	R&S	ENV216	CTA-314	2024/08/03	2025/08/02
EMI Test Receiver	R&S	ESPI	CTA-307	2024/08/03	2025/08/02
EMI Test Receiver	R&S	ESCI	CTA-306	2024/08/03	2025/08/02

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				Par usus	
Spectrum Analyzer	G Agilent	N9020A	CTA-301	2024/08/03	2025/08/02
Spectrum Analyzer	R&S	FSU	CTA-337	2024/08/03	2025/08/02
Vector Signal generator	Agilent	N5182A	CTA-305	2024/08/03	2025/08/02
Analog Signal Generator	R&S	SML03	CTA-304	2024/08/03	2025/08/02
WIDEBAND RADIO COMMUNICATION TESTER	CMW500	R&S	CTA-302	2024/08/03	2025/08/02
Temperature and humidity meter	Chigo	ZG-7020	CTA-326	2024/08/03	2025/08/02
Ultra-Broadband Antenna	Schwarzbeck	VULB9163	CTA-310	2023/10/17	2026/10/16
Horn Antenna	Schwarzbeck	BBHA 9120D	CTA-309	2023/10/13	2026/10/12
Loop Antenna	Zhinan	ZN30900C	CTA-311	2023/10/17	2026/10/16
Horn Antenna	Beijing Hangwei Dayang	OBH100400	CTA-336	2023/10/17	2026/10/16
Amplifier	Schwarzbeck	BBV 9745	CTA-312	2024/08/03	2025/08/02
Amplifier	Taiwan chengyi	EMC051845B	CTA-313	2024/08/03	2025/08/02
Directional coupler	G NARDA	4226-10	CTA-303	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA18	CTA-402	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA27	CTA-403	2024/08/03	2025/08/02
Automated filter bank	Tonscend	JS0806-F	CTA-404	2024/08/03	2025/08/02
Power Sensor	Agilent	U2021XA	CTA-405	2024/08/03	2025/08/02
Amplifier	Schwarzbeck	BBV9719	CTA-406	2024/08/03	2025/08/02
	Spectrum Analyzer  Vector Signal generator  Analog Signal Generator  WIDEBAND RADIO COMMUNICATION TESTER  Temperature and humidity meter  Ultra-Broadband Antenna  Horn Antenna  Loop Antenna  Horn Antenna  Amplifier  Directional coupler  High-Pass Filter  Automated filter bank  Power Sensor	Spectrum Analyzer  Vector Signal generator  Analog Signal Generator  WIDEBAND RADIO COMMUNICATION TESTER  Temperature and humidity meter  Ultra-Broadband Antenna  Horn Antenna  Horn Antenna  Horn Antenna  Amplifier  Schwarzbeck  Amplifier  Schwarzbeck  Taiwan chengyi  Directional coupler  High-Pass Filter  Automated filter bank  Power Sensor  Agilent  Agilent  R&S  Agilent  Agilent  Agilent  Agilent  Agilent  Agilent	Spectrum Analyzer  Vector Signal generator  Analog Signal Generator  WIDEBAND RADIO COMMUNICATION TESTER  Temperature and humidity meter  Ultra-Broadband Antenna  Horn Antenna  Schwarzbeck  Horn Antenna  Beijing Hangwei Dayang  Amplifier  Schwarzbeck  BBV 9745  Amplifier  Taiwan chengyi  High-Pass Filter  XingBo  XBLBQ-GTA18  High-Pass Filter  Agilent  N5182A  Agilent  N5182A  N5182A  N5182A  N5182A  N5182A  Shual  N5182A  SML03  R&S  SML03  R&S	Spectrum Analyzer R&S FSU CTA-337  Vector Signal generator Agilent N5182A CTA-305  Analog Signal Generator R&S SML03 CTA-304  WIDEBAND RADIO COMMUNICATION TESTER Temperature and humidity meter Ultra-Broadband Antenna Schwarzbeck VULB9163 CTA-310  Horn Antenna Schwarzbeck BBHA 9120D CTA-309  Loop Antenna Zhinan ZN30900C CTA-311  Horn Antenna Beijing Hangwei Dayang OBH100400 CTA-312  Amplifier Schwarzbeck BBV 9745 CTA-312  Amplifier Taiwan chengyi EMC051845B CTA-313  Directional coupler NARDA 4226-10 CTA-303  High-Pass Filter XingBo XBLBQ-GTA18 CTA-402  High-Pass Filter XingBo XBLBQ-GTA27 CTA-403  Automated filter bank PSE STA SILEN CTA-405  Agilent U2021XA CTA-405	Spectrum Analyzer         R&S         FSU         CTA-337         2024/08/03           Vector Signal generator         Agilent         N5182A         CTA-305         2024/08/03           Analog Signal Generator         R&S         SML03         CTA-304         2024/08/03           WIDEBAND RADIO COMMUNICATION TESTER         CMW500         R&S         CTA-302         2024/08/03           Temperature and humidity meter Ultra-Broadband Antenna         Chigo         ZG-7020         CTA-326         2024/08/03           Ultra-Broadband Antenna         Schwarzbeck         VULB9163         CTA-310         2023/10/17           Horn Antenna         Schwarzbeck         BBHA 9120D         CTA-309         2023/10/13           Loop Antenna         Zhinan         ZN30900C         CTA-311         2023/10/17           Horn Antenna         Beijing Hangwei Dayang         OBH100400         CTA-336         2023/10/17           Amplifier         Schwarzbeck         BBV 9745         CTA-312         2024/08/03           Amplifier         Taiwan chengyi         EMC051845B         CTA-313         2024/08/03           Directional coupler         NARDA         4226-10         CTA-303         2024/08/03           High-Pass Filter         XingBo         XBLBQ-GTA27

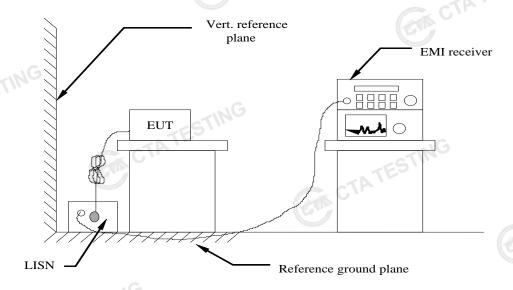
	Amplifier	Schwarzbeck	BBV9719	CTA-406	2024/08/03	2025/08/02
- 1	TING					Voustally
CTATE	Test Equipment	Manufacturer	Model No.	Version number	Calibration Date	Calibration Due Date
7	EMI Test Software	Tonscend	TS®JS32-RE	5.0.0.2	N/A	N/A
	EMI Test Software	Tonscend	TS®JS32-CE	5.0.0.1	N/A	N/A
	RF Test Software	Tonscend	TS®JS1120-3	3.1.65	N/A	N/A
G	RF Test Software	Tonscend	TS®JS1120	3.1.46	N/A	N/A

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# 4 TEST CONDITIONS AND RESULTS

### 4.1 AC Power Conducted Emission

#### **TEST CONFIGURATION**



# TEST PROCEDURE

- 1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2013.
- 2 Support equipment, if needed, was placed as per ANSI C63.10-2013
- 3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2013
- 4 The EUT received power from adapter, the adapter received AC120V/60Hz and AC 240V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5 All support equipments received AC power from a second LISN, if any.
- 6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
- 8 During the above scans, the emissions were maximized by cable manipulation.

### **AC Power Conducted Emission Limit**

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following:

Frequency range (MHz)	Limit (	(dBuV)
Frequency range (MHZ)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
* Decreases with the logarithm of the freque	ency.	

### **TEST RESULTS**

The EUT is a vehicle device, So this test Item is not applicable for the EUT.

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### 4.2 Radiated Emissions

### **Limit**

The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

#### **Undesirable emission limits**

Requirement	Limit(EIRP)	Limit (Field strength at 3m) Note1
15.407(b)(1)		
15.407(b)(2)	PK:-27(dBm/MHz)	DK:69 2(dBu\//m)
15.407(b)(3)	PK27 (UBIT/IVITZ)	PK:68.2(dBμV/m)
15.407(b)(4)		

Note1: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \, \mu \text{V/m, where P is the eirp (Watts)}$$

(5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209 (6)In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

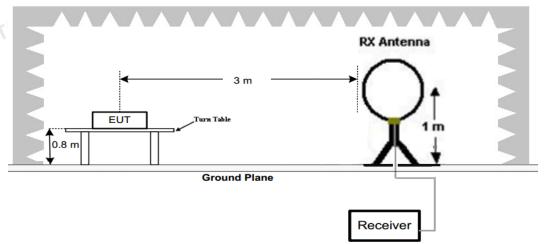
Radiated emission limits

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

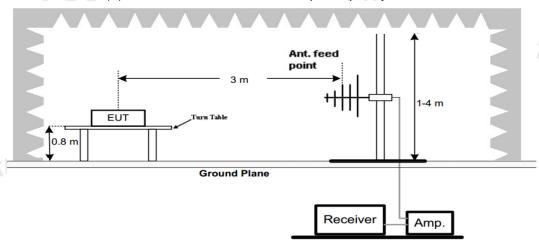
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### **TEST CONFIGURATION**

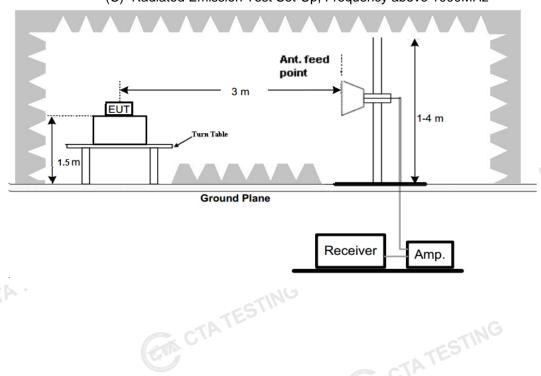
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



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### **Test Procedure**

- Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
- 2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C to acquire the highest emissions from EUT
- And also, each emission was to be maximized by changing the polarization of receiving antenna both 3. CTATE horizontal and vertical.
- 4. Repeat above procedures until all frequency measurements have been completed.
- Radiated emission test frequency band from 9KHz to 40GHz.
- The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Bilog Antenna	3
1GHz-18GHz	Horn Antenna	3
18GHz-25GHz	Horn Anternna	1

Setting test receiver/spectrum as following table states:

18GHz-25GHz	Horn Anternna 1		
tting test receiver/spectrui	m as following table states:		ING
Test Frequency range	Test Receiver/Spectrum Setting	Detector	5111
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP	
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP	
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP	
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak	
RESULTS C:	CTATESTING		

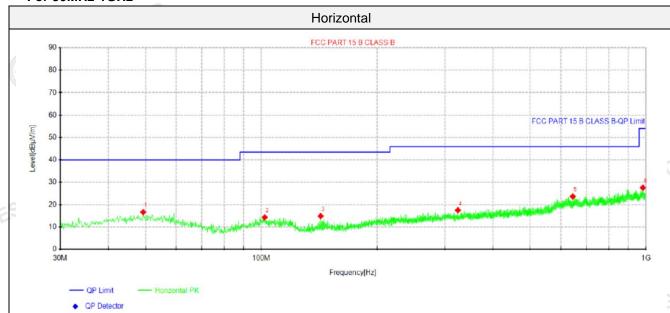
### **TEST RESULTS**

### Remark:

- This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X
- 1. All modes have been tested for below 1GHz test, only the worst case of Mid Channel was recorded
- Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

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### For 30MHz-1GHz



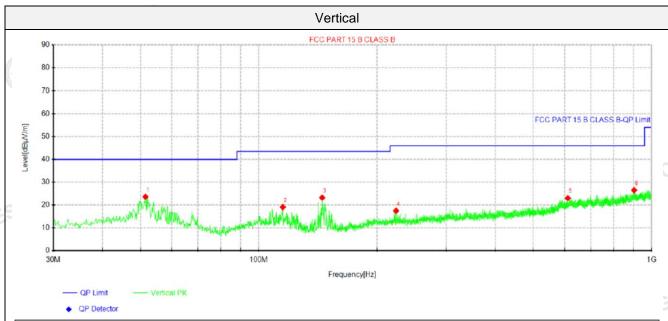
Suspe	Suspected Data List									
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Height	Angle	Dolority	
NO.	[MHz]	[dBµV]	[dBµV/m]	[dB/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity	
1	49.2788	27.83	16.65	-11.18	40.00	23.35	100	67	Horizontal	
2	102.022	27.29	14.31	-12.98	43.50	29.19	100	79	Horizontal	
3	142.641	30.47	14.88	-15.59	43.50	28.62	100	79	Horizontal	
4	324.273	28.41	17.51	-10.90	46.00	28.49	100	161	Horizontal	
5	645.101	29.13	23.66	-5.47	46.00	22.34	100	360	Horizontal	
6	981.933	29.45	27.59	-1.86	54.00	26.41	100	3	Horizontal	

CTATE

Note:1).Level ( $dB\mu V/m$ )= Reading ( $dB\mu V$ )+ Factor (dB/m)

- 2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) Pre Amplifier gain (dB)
- 3). Margin(dB) = Limit (dB $\mu$ V/m) Level (dB $\mu$ V/m)

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Suspe	Suspected Data List								
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Height	Angle	Dolority
NO.	[MHz]	[dBµV]	[dBµV/m]	[dB/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	51.4612	34.94	23.68	-11.26	40.00	16.32	100	166	Vertical
2	115.117	32.65	19.00	-13.65	43.50	24.50	100	227	Vertical
3	145.066	38.84	23.28	-15.56	43.50	20.22	100	227	Vertical
4	223.636	29.87	17.40	-12.47	46.00	28.60	100	166	Vertical
5	611.878	28.70	23.04	-5.66	46.00	22.96	100	23	Vertical
6	902.636	29.11	26.53	-2.58	46.00	19.47	100	58	Vertical

CTATE

Note:1).Level ( $dB\mu V/m$ )= Reading ( $dB\mu V$ )+ Factor (dB/m)

- 2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) Pre Amplifier gain (dB)
- 3). Margin(dB) = Limit (dB $\mu$ V/m) Level (dB $\mu$ V/m)

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### For 1GHz to 40GHz

Tested	Frequency	Emission	Detector	ANT	Limit	Margin	Raw	Antenna	Cable	Pre	Correction
Channel	(MHz)	Level	Mode	Pol	(dBuV/m)	(dB)	Value	Factor	Factor	amplifier	Factor
		(dBuV/m)					(dBuV)	(dB/m)	(dB)	(dB)	(dB/m)
	5778.00	99.14	PK	H	114.00	14.86	101.35	33.96	6.21	42.38	-2.21
(5778MHz)	5778.00	79.21	AV	(H)	94.00	14.79	81.42	33.96	6.21	42.38	-2.21
			-			-			5112		
	5778.00	103.45	PK	V	114.00	10.55	105.66	33.96	6.21	42.38	-2.21
(5778MHz)	5778.00	82.95	AV	V	94.00	11.05	85.16	33.96	6.21	42.38	-2.21
						-	G. 2.				1
							None			O I COL	S CVr
TING											are training

### GFSK Mode (above 1GHz)

Tested	Frequency	Emission	Detector	ANT	Limit	Margin	Raw	Antenna	Cable	Pre	Correction
Channel	(MHz)	Level	Mode	Pol	(dBuV/m)	(dB)	Value	Factor	Factor	amplifier	Factor
		(dBuV/m)					(dBuV)	(dB/m)	(dB)	(dB)	(dB/m)
Low	5720.00	49.54	PK	Н	79.60	30.06	52.29	33.43	6.04	42.22	-2.75
(5778MHz)	5855.00	51.33	PK	Н	79.60	28.27	53.59	33.87	6.17	42.3	-2.26
	11556.00	47.23	pk	Н	68.20	20.97	42.72	38.80	11.12	45.41	4.51
									C4-11		
Low	5720.00	51.56	PK	V	79.60	28.04	54.31	33.43	6.04	42.22	-2.75
(5788MHz)	5855.00	53.18	PK	V	68.20	15.02	55.44	33.87	6.17	42.3	-2.26
	11556.00	48.32	PK	V	68.20	19.88	43.81	38.80	11.12	45.41	4.51

### REMARKS:

- 1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
- 2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
- 3. Margin value = Limit value- Emission level.
- -- Mean the other emission levels were very low against the limit.
- 5. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.

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#### 4.3 20dB Bandwidth Measurement

### **TEST CONFIGURATION**



### **TEST PROCEDURE**

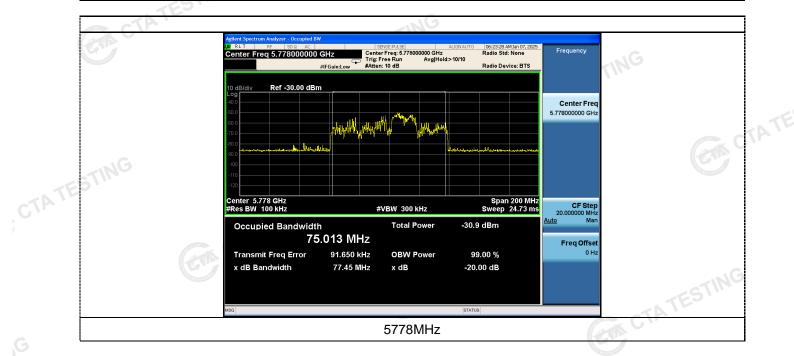
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30KHz RBW and 300KHz VBW.

is hig The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

### LIMIT

### **Test Results**

LIMIT  Test Results		ATES	CTATESTING
Туре	Channel	20dB Bandwidth (MHz)	Result
GFSK	5778MHz	77.45	Pass



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### **Antenna Requirement**

### Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

CTATE And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### **Antenna Information**

The maximum gain of antenna was 0.55 dBi.

Remark: The antenna gain is provided by the customer, if the data provided by the customer is not accurate, Shenzhen CTA Testing Technology Co., Ltd. does not assume any responsibility. CTA TESTING

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# Test Setup Photos of the EUT CTATE!





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# 6 Photos of the EUT







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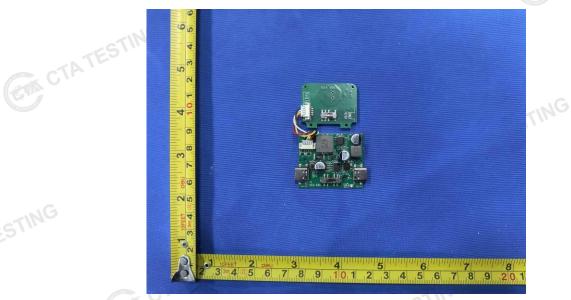
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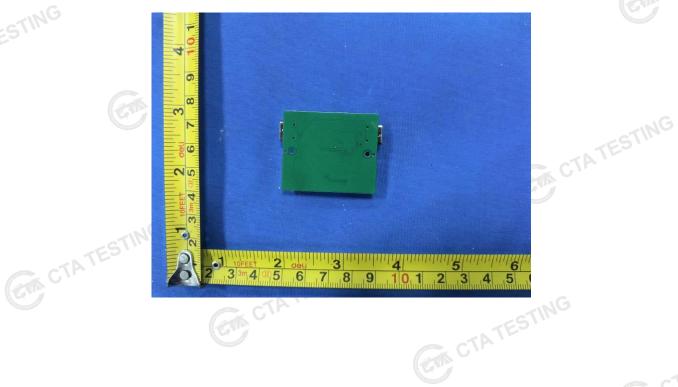




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